PRACTICE GUIDELINES for LABORATORY WELLNESS SCREENING and CASE FINDING

Washington State Clinical Laboratory Advisory Council

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The design of the "first generation" of high-volume chemistry analyzers over 30 years ago required all tests to be performed on the instrument whether ordered or not. Marketing of complete test panels resulted in a "more is better" attitude toward laboratory testing. Over the years, several studies have concluded, however, that such "multiphasic" screening is of little benefit in the outpatient, ambulatory population. For instance, a Kaiser Permanente study followed 5,156 patients who received annual multiphasic testing and 5,557 patients who did not receive this annual testing for a 16-year period. No differences in mortality and disability were reported between groups, thus it was concluded that the annual testing was of little benefit[1].

In recent years, several professional groups have begun to recommend the use of limited testing to assist in disease diagnosis. These recommended tests support the diagnostic philosophy of either **wellness screening** or **case finding**. Wellness screening is defined as the testing of healthy, asymptomatic persons. Rather than *general* screening for all disease, the current recommendations are *selective* in nature, targeting certain conditions. The diseases for which screening is appropriate are those that are: 1) relatively common, 2) detectable before clinical symptoms develop, 3) easy to treat, and 4) harmful if left untreated. Case finding, on the other hand, is the testing of patients being seen for unrelated symptoms or diseases. In contrast to the healthy patients being tested in wellness screening, these patients do have a medical problem. The distinction between wellness screening and case finding is important. Screening tends to be sporadic and is estimated to capture only 5-10 percent of eligible patients. Case finding reaches a much larger population segment because most persons visit a physician periodically for some reason.

The Washington State Clinical Laboratory Advisory Council has reviewed published recommendations for both screening and case finding testing. These recommendations are summarized below. The differences in the recommended testing are possibly due to professional philosophical differences between laboratory and clinician groups.

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The individual clinician is in the best position to determine which tests are most appropriate for a particular patient.

Screening Testing for General Adult Population[2,3]

	Recommending Organization			
	CAP	**ACP**	**USPSTF**	**CTF**
Total cholesterol	Yes	Yes	Yes	Yes
HDL-cholesterol	Yes			
Serum iron and transferrin saturation	Yes			
Cervical cytology	Yes	Yes	Yes	Yes
Stool for occult blood	>50 yr.	>50 yr.		

Testing for *Case Finding* in Adults[2,3]

	Recommending Organization			
	CAP	**ACP**	**USPSTF**	**CTF**
Blood glucose testing for pregnant females	Yes	Yes	Yes	Yes
Blood glucose testing for demonstrated hypercholesterolemia	Yes			
Blood glucose testing for selected patients with family history of diabetes	Yes	Yes	Yes	Yes
Thyroid function tests in selected adults	Women >50 yr.	Women >50 yr.	Women >60 yr.	
Thyroid function tests for demonstrated hypercholesterolemia	Yes			
Serum creatinine and urea nitrogen for demonstrated hypercholesterolemia	Yes			
Prostate-specific antigen testing (in conjunction with digital rectal examination only)	>50 yr.	Optional		

Portions of the table left blank do not necessarily indicate the organization considered but did not recommend testing. Please see the references below for more complete discussions of testing recommendations.

CAP (College of American Pathologists), **ACP** (American College of Physicians), **USPHSTF** (United States Preventive Services Task Force), **CTF** (Canadian Task Force on the Periodic Health Examination)

The Washington State Clinical Laboratory Advisory Council will continue to monitor wellness screening and case finding testing recommendations and provide updates as they are made available.

References:
1. Friedman, G *et al.*; Multiphasic health checkup evaluation: a 16-year follow up; **J Chron Dis** 1986; **39**:453-463.
2. Hayward, RS; Preventive Care Guidelines: 1991; **Ann Int Med** 1991; **114**: 758-783.
3. Glenn, GC; Practice parameter on laboratory panel testing for screening and case finding in asymptomatic adults; **Arch Pathol Lab Med** 1996;

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